



SAN FRANCISCO PLANNING DEPARTMENT

MEMO

DATE: July 5, 2017
TO: Case File No. 2007.0903ENV-02
FROM: Rachel A. Schuett, Environmental Planning
RE: Clipper Cove Marina Expansion

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

Background

The marina expansion at Clipper Cove involves the demolition of the existing 108-slip marina, and the construction of a new, larger marina on the same site. The marina expansion has already been subject to environmental review under the California Environmental Quality Act (CEQA), as described in further detail, below. However, the final design for the marina expansion has been revised since the environmental analysis was completed. The purpose of this memorandum is to highlight the proposed revisions to the marina expansion project and identify whether or not the revisions would result in additional environmental impacts or require further analysis. All referenced figures are included as Attachment A.

As joint lead agencies pursuant to CEQA and the State CEQA Guidelines, 14 California Code of Regulations Sections 15000 et seq. (the "CEQA Guidelines"), the Treasure Island Development Authority ("TIDA"), and the San Francisco Planning Department ("Planning Department"), prepared two separate Environmental Impact Reports analyzing the proposed transfer of Treasure Island and Yerba Buena Island, in the San Francisco Bay, from the United States Navy ("the Navy") to the City and County of San Francisco (the "City"), as well as the subsequent redevelopment of the land.

2006 EIR. The Transfer and Reuse of Naval Station Treasure Island Final Environmental Impact Report (FEIR) was certified on May 5, 2005¹ (State Clearinghouse No. 1996092073) ("2006 EIR"). The 2006 EIR includes both a program-level analysis of the transfer of portions of the former base from the U.S. Navy to the City, and a project-level analysis of the expansion of the marina at Clipper Cove. A description of what was analyzed is included under "Original Project" below.

2011 EIR. The Treasure Island/Yerba Buena Island Redevelopment Project Final Environmental Impact Report was certified on April 21, 2011 (State Clearinghouse No. 20080012105) ("2011 EIR").² The 2011 EIR analyzed the impacts of the redevelopment of the portions of the Naval

¹ The EIR, consisting of the Draft EIR and the Responses to Comments document, which technically comprises the Final EIR was certified on May 5, 2005. The FEIR, which formally combines the DEIR (as revised based on public comment and staff-initiated text changes), and the Responses to Comment was published on June 1, 2006.

² In accordance with Sections 15063 and 15082 of the CEQA Guidelines, the Planning Department and TIDA, prepared a Notice of Preparation of the 2011 EIR and conducted scoping meetings. Written and oral comments received on the NOP are included in the Draft Environmental Impact Report ("2011 DEIR"). The 2011 DEIR was published on July 12, 2010, for a 45 day comment period, which was extended once to

Station Treasure Island (NSTI) that were still owned by the Navy, after the land was transferred to the TIDA. The proposed program of development (“master development”) for the island included: residential, commercial, retail, office, hotel, cultural, museum, recreational, and flex space uses. The document included analysis of new or upgraded public facilities and utilities, streets and public ways; bicycle, transit, and pedestrian facilities, parks and open space, including shoreline access, a new Ferry Terminal and intermodal Transit Hub, and rehabilitation of historic buildings. The master development would be undertaken by Master Developer, Treasure Island Community Development, LLC (“Master Developer”). The 2011 EIR also analyzed new and upgraded landside and waterside facilities for the existing Treasure Island Sailing Center, located adjacent the marina at Clipper Cove, to the east, and landside services and improvements for the expanded marina. A description of what was analyzed is included under “Original Project” below. The waterside improvements associated with the marina expansion, were not further analyzed in the 2011 EIR.

Project Description

As mentioned above, the 2006 EIR analyzed both landside and waterside improvements associated with the proposed marina expansion. Subsequent to the publication of the 2006 EIR, and prior to the approval of the waterside improvements, the landside improvements proposal was rescinded. However, the landside services and improvements for the expanded marina were then included as part of the master development plan and were analyzed in the 2011 EIR.³

Subsequent to the publication of the 2011 EIR, the proposed marina expansion project design was updated due to: (1) the evolution and modernization of marina design, (2) the United States Navy requirements involving the hazardous materials clean-up efforts at the marina, and (3) conformance with the Division of Boating and Waterways (DBW) Guidelines for Marina Berthing Facilities that receive state funding. A description of what is currently proposed is included under “Proposed Revisions” below.

September 10, 2010, for a total of 60 days, and notices of the availability of the document were distributed to the public in a newspaper of general circulation and advertised, mailed, or otherwise delivered to a list of persons requesting it. TIDA and the Planning Commission held a joint public hearing on August 12, 2010, at which opportunity for public comment was given, and public comment was received on the 2011 DEIR. The 2011 EIR contains all of the comment letters received during the public comment period, as well as a transcript of the public hearing held on August 12, 2010. The 2011 EIR also contains responses to those comments, which the Planning Commission prepared in accordance with CEQA and the CEQA Guidelines. TIDA and the Planning Commission reviewed the comments received and the responses thereto and found that the 2011 EIR provides adequate, good faith, and reasoned responses to those comments. On April 21, 2011, TIDA and the Planning Commission certified the 2011 EIR as required by CEQA and adopted CEQA Findings related to the Project.

³ The 2011 EIR also analyzed new and upgraded landside and waterside facilities for the existing Treasure Island Sailing Center.

Original Project

Waterside Component. The waterside component of the original project was evaluated under the “Maximum Development Alternative” in the 2006 EIR. The waterside component would include deconstruction of the existing 108-slip marina and construction of eight mainwalks (piers) (400 to 750 feet in length) with 403 slips (35 to 80 feet in length). The area of the piers would total 132,801 square feet.

A 14,760-square-foot, accessible floating breakwater/wave attenuator/public pedestrian pier would be constructed to protect Clipper Cove from waves. The floating breakwater/wave attenuator/public pedestrian pier would extend approximately 820 feet into Clipper Cove and would provide public access to the water. The public pier would be equipped to permit manually-launched, non-motorized light watercraft, such as kayaks and canoes.

A convenience counter, a pump-out station, and a possible fuel station may be housed at the floating breakwater/wave attenuator/public pedestrian path. Temporary side ties would be available for public access uses, including use by the Treasure Island Sailing Center.

The marina layout would follow the long, narrow shape of the Clipper Cove basin, and would include energy conservation metering, telephone and cable services, and security features.⁴ Approximately 119,650 square feet of bay surface area would be covered by the construction of the piers and breakwater, and approximately 146,000 cubic yards of material would be dredged to create a navigable channel for all users of Clipper Cove.

Live-aboard boats would be allowed at a ratio of no more than ten percent of the total authorized boat berths, for a maximum of 40 live-aboard boats. The split between sailboats and powerboats would be about 68 and 32 percent, respectively. For sailboats the split between gas-powered and diesel-powered boats would be about 30 and 70 percent, respectively. For powerboats, the split between gas-powered and diesel-powered powerboats would be about 50 percent and 50 percent.

Landside Component. As described in the 2011 EIR, landside improvements would include restrooms, laundry facilities, and other improvements designed to serve marina tenants as well as the existing Treasure Island Sailing Center, a separate facility that also uses Clipper Cove. Per the 2011 EIR, these landside improvements would be constructed regardless of whether or not the marina is expanded.

Two hundred and thirty five parking spaces (at a ratio of 0.6 parking spaces per slip) would be provided for the marina uses.

Proposed Revisions

As under the original project, the existing 108-slip marina would be replaced with an expanded marina. However, the proposed modifications would reduce the number of boat slips from 404 to 313, 90 fewer slips than under the original project. Further, a dual-purpose, single-loaded A Dock, featuring slips on the westerly plane and wave attenuation and dock space on the easterly plane would replace the previously proposed and studied stand-alone wave attenuator and transient dock included in the original project.

⁴Security features would include a locked gate with entry restricted by use of an electronic key card.

The overall length of the marina would be 882 feet from its westerly edge to its easterly edge with an additional 185 foot “dogleg” to the A Dock that protrudes into Clipper Cove. A site plan is included as Figure 1.

As shown on Figure 2, as under the original project, the marina layout would follow the long narrow shape of the Clipper Cove basin. The floating docks are designed to comply with the requirements of the federal Americans with Disabilities Act, and state and local regulations, and would include modern pump-out facilities, modern utilities, energy conservation metering, telephone and cable services, other telecommunications systems, and a secured entry via keycard-accessible gate. However, a fuel station would not be included, and no fuel sales would be permitted within the marina. The revised design would allow more open-water for the public as a result of the reduction in the marina’s overall waterside footprint. As noted above, the new A Dock would have a dual purpose: boat slips on the westerly side and short-term transient docks, and occasional day-use docks on the easterly side. Day use anchorage would continue to take place in the open water areas of Clipper Cove.

Approximately 131,028 square feet of bay surface would be covered by the construction of piers and the A Dock wave attenuator/transient dock, an increase of 11,378 square feet of coverage from the original project. The revised project would include dredging of approximately 133,358 cubic yards of material for the navigable channel, a reduction of 12,642 cubic yards compared to the original project. The conceptual dredging plan and section elevations are included on Figures 3 through 6.

Live-aboard boats would be allowed at the Division of Boating and Waterways (“DBW”) and San Francisco Bay Conservation and Development Commission’s (“BCDC”) allowed ratio of no more than 10 percent of the total authorized boat berths, for a maximum of 31 live-aboard boats. The split between sailboats and powerboats at the marina would change from about 68 to 86 percent sailboats (an increase of 18 percent) and from about 32 percent to 14 percent powerboats (a decrease of 18 percent). The anticipated split between diesel powered and gas powered boats would remain the same as under the original project.

The proposed marina expansion no longer includes any newly built structures or landscaping on the landside areas adjacent to Clipper Cove, as all of those responsibilities are now a part of the obligations of the Master Developer and were analyzed in the 2011 EIR for the development of Treasure Island. The marina operator’s landside functions, such as harbormaster’s office, restrooms and other office and business needs would now be accommodated in buildings constructed by the Master Developer on the landside adjacent to Clipper Cove and rented to Treasure Island Enterprises, LLC, or other third-party providers of services. The landside elements analyzed in the 2011 EIR have not changed.

Parking for the marina would be accommodated in short-term parking spaces along Clipper Cove and in off-site surface areas and garages, all of which were studied in the 2011 EIR for the development of Treasure Island. The proposed number of parking spaces needed for marinas is 0.6 spaces for each slip, and accordingly, the 313-slip marina would require only 188 parking spaces, less than the 235 spaces that were analyzed in the 2011 EIR for the development of Treasure Island. This decrease in demand would not result in fewer parking spaces being constructed; instead, the 47 parking spaces would be allocated to other uses.

Operations. The marina would be operated by full-time, on-site staff, in a manner that is consistent with both the 2006 and the 2011 EIRs. The project sponsor would operate the marina pursuant to the terms of a 66-year lease between TIDA as lessor, and Treasure Island Enterprises, LLC, as lessee. The lease would give the project sponsor exclusive rights to use of the marina and non-exclusive rights to operate in Clipper Cove.

Approved uses for the revised project have not changed from the original project and would include:

- Rental of boat slips to the public for monthly boaters, and live-aboard boaters, in conformity with BCDC requirements and other approvals to be granted by TIDA.
- Short-term mooring for water taxi service and recreational boats, boat storage, boat and other light watercraft launching, buoy and mooring rentals, and transient boat moorage.
- Rental of dock lockers or other facilities to slip renters for storage of personal boating items.
- A community benefits program to provide Bay experiences and opportunities to disadvantaged community youth at Treasure Island, including Treasure Island Homeless Development Initiative residents.
- Boat launching and retrieving services.
- Minor marine services.
- Day use rentals of small craft and kayaks.
- Telecommunications and cable services for the marina.
- Food and beverage services for the marina.
- Guest boater and transient boater short-term moorage.

The uses identified for the revised project would be the same as those identified for the original project, and there are no proposed revisions to the operation of the expanded marina.

Construction Phasing. The construction of the marina expansion project would be undertaken in three non-overlapping phases, each phase would take 12 to 16 months. The A Dock and its adjacent dock, the B Dock, would be constructed in Phase 1, and the C Dock and D Docks would be constructed in Phase 2. In Phase 3, the existing 108-slip marina would be deconstructed and the last dock, the E Dock, would be constructed.

Dredging would be expected to occur during Phase 1. Prior to conducting dredging activities, all materials proposed for dredging would be tested for heavy metals, hydrocarbons, PCBs, tributyltin, pesticides, and any other contaminants of concern to the Regional Water Quality Control Board. The results of the sediment sampling would determine the disposal options including on-site re-use or upland disposal. Disposal would be conducted in compliance with the Long Term Management Strategy described in the 2006 EIR. No revisions to the construction phasing are proposed.

Approvals. The proposed project would require approval by the San Francisco Board of Supervisors TIDA Board, as well as approvals from BCDC, the Regional Water Quality Control Board, and the U.S. Army Corps of Engineers, Joint Aquatic Resource Permitting Application.

TIDA Actions. The actions of TIDA in connection with the marina expansion include:

- Adoption of CEQA Findings and a Mitigation Monitoring and Reporting Program (MMRP)
- Approval of a 66-year Treasure Island Marina Lease by and between TIDA and Treasure Island Enterprises, LLC in support of the expansion and operation of the marina at Clipper Cove
- Endorsement and recommendation to the Board of Supervisors for approval of the CEQA findings, the MMRP and a 66-year Treasure Island Marina Lease by and between TIDA and Treasure Island Enterprises, LLC

The project approvals and TIDA actions are the same as under the original project. No revisions are proposed.

Analysis of Potential Environmental Impacts

As discussed above, the proposed modifications to the Clipper Cove Marina would reduce the number of boat slips and parking spaces, reduce the quantity of dredging, reduce the number of live-aboard boats, and eliminate the fuel station. Overall, these modifications would reduce both the construction and operational impacts of the marina expansion in comparison with the original project evaluated in the 2006 EIR. Therefore, as summarized in Table 1, below, the updates to the final design of the marina expansion project would not result in new or substantially more severe individual or cumulative impacts than were previously identified in the 2006 EIR.

While the proposed modifications would generally reduce the scale of the marina expansion and related impacts, the proposed modifications to the piers and A Dock wave attenuator/transient dock would increase the amount of bay coverage by 11,378 square feet, resulting in a corresponding increase in potential impacts on biological resources related to bay coverage. The 2006 EIR found that compliance with state and federal regulatory requirements would ensure that impacts related to bay surface coverage would be less than significant. The modified project would be subject to the same regulatory requirements, which would ensure that the increase of 11,378 square feet of bay coverage from 119,650 square feet under the original project would not result in new or substantially more severe impacts than were identified in the 2006 EIR. As such, the increase in the amount of bay surface coverage is not a substantial change to the marina expansion project that would result in a substantial increased impact to biological resources. Therefore, because the modified project would have fewer slips, fewer parking spaces, would require less dredging, and would result in fewer vehicle trips than the original project, the transportation-related and cumulative air quality impacts would be less than previously analyzed.

Table 1. Proposed Revisions			
Design Feature	Original Project	Modified Project	Change to Impact Analysis
Number of slips	403 slips	313 slips	None. A reduction of 90 slips would reduce potential impacts to mudflat habitats such as eelgrass beds and to shorebirds that forage in the mudflats, by reducing boat traffic in Clipper Cove.
Parking ratio (spaces/slip)	0.6	0.6	No change.
Number of parking spaces	240 spaces	188 spaces	None. A reduction of 52 parking spaces does not change the parking ratio of 0.6 spaces per slip, thus there would be no change to the impact analysis.
Bay Coverage	119,650 sf	131,028sf	None. Compliance with state and federal regulatory requirements would ensure that the increase in bay surface coverage of 11,378 sf would not result in substantially greater impacts than previously identified including impacts to eelgrass beds.
Wave attenuation	Stand-alone wave attenuator	Eastern plane of the single-loaded A Dock	None. No impacts related to wave attenuation were identified.
Dredging	146,000 cubic yards	133,358 cubic yards	None. The impacts related to dredging would were found to be less than significant with mitigation, and the mitigation identified in the 2006 EIR would continue to apply. Thus, a reduction of 12,642 cubic yards of dredging would not change the impact analysis or findings.
Sailboat/ Powerboat split	68% sailboats and 32% powerboats	86% sailboats and 14% powerboats	None. No impacts related to the split between sailboats and powerboats were identified; thus, an 18% increase in sailboats, and 18% decrease in powerboats would result in lower air quality impacts than were identified in the 2011 EIR.
Sailboat Fuel	30% Gas-powered 70% Diesel-powered	30% Gas-powered 70% Diesel-powered	No change.
Powerboat Fuel	50% Gas-powered 50% Diesel-powered	50% Gas-powered 50% Diesel-powered	No change.
Fuel Station	Possibly included	Not included	None. No impacts related to the possible provision of a fuel station were identified.

Sources: 2006 EIR, 2011 EIR

Naval Base Closure Remediation Requirements

Prior to the transfer of Naval Station Treasure Island (“NSTI”) to the TIDA, the Navy is required to identify, analyze, and clean up any releases of hazardous materials and wastes associated with past operations. This effort is undertaken according to a procedures manual known as the Base Redevelopment and Realignment Manual, which was prepared by the United States Department of Defense (“DOD”).

The Installation Restoration Program (“IR Program”) is an ongoing DOD-administered program for identifying, evaluating, and remediating contaminated sites on Federal lands under DOD control. Thirty-one Installation Restoration sites (“IR Site”) were identified on Treasure Island in the 2006 EIR. The only IR Site identified in the 2006 EIR that directly impacts the marina expansion project is IR Site 27, a fan-shaped area located in Clipper Cove.

Site 27 encompasses approximately 19 off-shore acres and one acre of onshore land at Treasure Island. From 1979 to 1989 a portion of this area was used as a naval skeet range where lead shot was used to fire at targets. As a result lead shot and clay targets were deposited within the submerged sediment in the cove resulting in contamination from lead (from the shot) and polycyclic aromatic hydrocarbons (from the clay targets). Remediation activities were undertaken to remove and backfill contaminated sediment and a cap was placed over the area to prevent waterfowl from coming into contact with contaminants, see Figure 7.

Since publication of the 2006 EIR and the 2011 EIR, the United States Navy has completed its remediation of Clipper Cove, IR Site 27, resulting in a Finding of Suitability to Transfer (“FOST”). A Covenant to Restrict Use of Property (“CRUP”) entered into by the Navy and the California Department of Toxic Substances Control was finalized and recorded against the property on September 20, 2016.⁵ The CRUP is included as part of the lease agreement between Treasure Island Enterprises, LLC, and TIDA. The CRUP includes a requirement for a “no wake zone” speed limit of 5 mph, or less, and additional operational restraints to further eliminate any adverse effects on IR Site 27. The marina expansion is designed, and would be operated, in a manner which meets all of the CRUP requirements.

The remediation of IR Site 27 was anticipated in the 2006 EIR as a separate activity by the Navy. The environmental impacts of the remediation were not analyzed within the 2006 EIR. The 2011 EIR acknowledged the remediation activities, again, as a separate activity by the Navy, and the analysis therein was based on the assumption that the remediation activities would be completed as planned. Restrictions on the design of the marina and operational constraints, as part of the CRUP, were predicted in both documents. Therefore, the contents of the CRUP do not constitute substantial new information, or a change in circumstances for the marina expansion.

⁵ Department of the Navy. Base Realignment and Closure Program. *Covenant to Restrict the Use of Property Environmental Restriction. Site 27 Parcel (Clipper Cove) within Former Naval Station Treasure Island, San Francisco, California [Site Code: 202042]*. September 20, 2016. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2007.0903ENV-02.

Conclusion

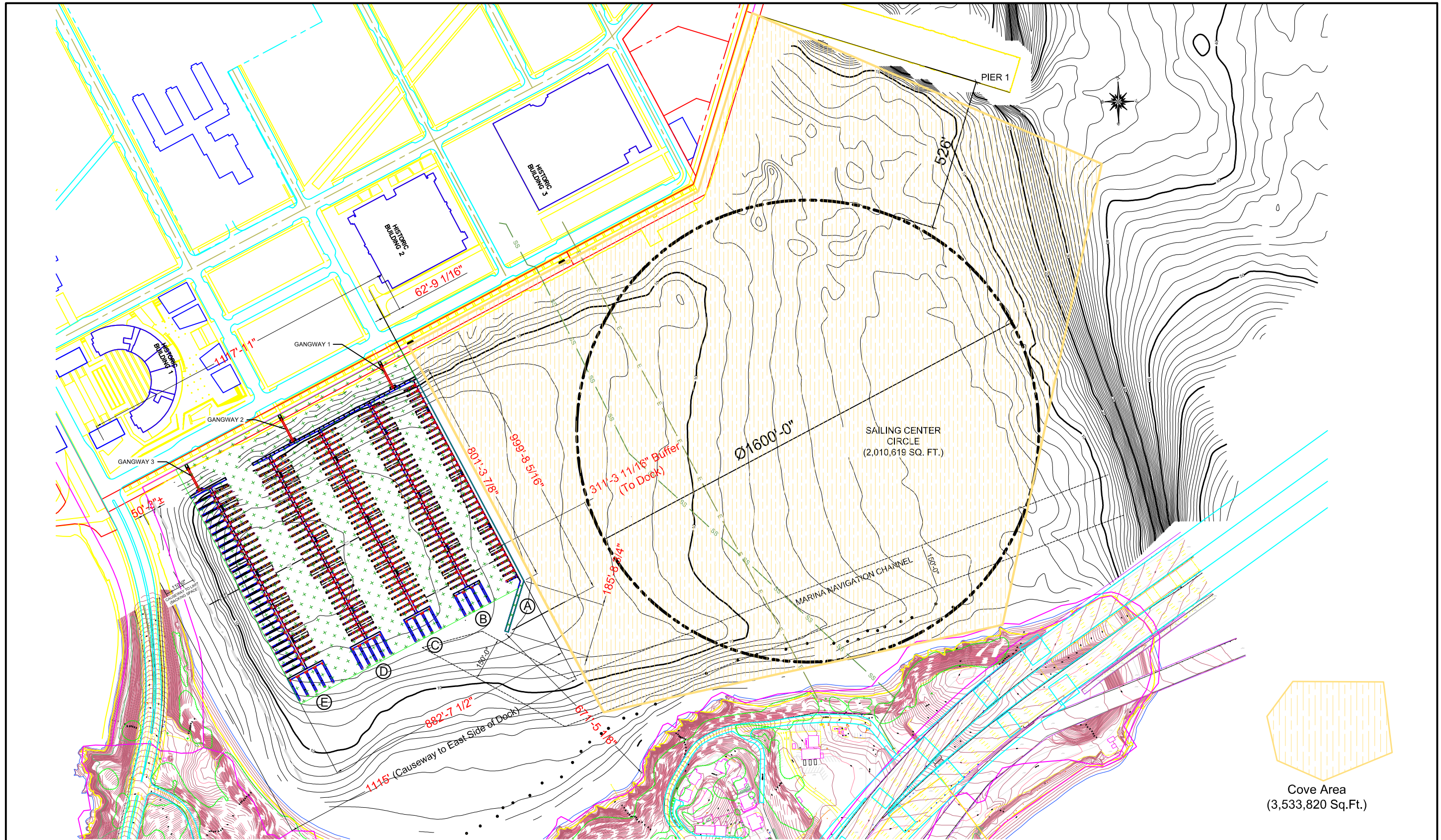
Section 31.19(c)(1) of the San Francisco Administrative Code states that a modified project must be reevaluated and that, "If, on the basis of such reevaluation, the Environmental Review Officer determines, based on the requirements of CEQA, that no additional environmental review is necessary, this determination and the reasons therefor shall be noted in writing in the case record, and no further evaluation shall be required by this Chapter."

Based on review of the proposed revisions to the marina expansion project, the Environmental Review Officer has determined that the revised project is within the overall scope of the 2006 EIR (waterside), and the 2011 EIR (landside) projects, there have not been any substantial changes with respect to the circumstances under which development of Treasure Island, including the modified project, would be undertaken, nor has new information of substantial importance come to light that would alter the impact findings in or require major revisions to the 2006 and/or 2011 EIRs. As such, pursuant to California Public Resources Code Section 21166, the conditions which would require the preparation of a subsequent or supplemental environmental impact report have not been met.

No additional environmental impacts would occur as a result of project implementation and no additional environmental analysis would be required under CEQA.

Attachment A: Project Figures

PRELIMINARY - NOT FOR CONSTRUCTION



NO.	DATE	DESCRIPTION	BY
A	6-13-17	Figure 1	DD
REVISIONS			

Bellingham MARINE
The World's Most Comprehensive Marina Builder
 Southwest Division
 8810 Sparling Lane
 Dixon, CA 95620
 TEL: (707) 678-2385
 FAX: (707) 678-1760

This drawing contains proprietary information which is the property of Bellingham Marine Industries, Inc., and shall not be copied, reproduced or made available to third parties without prior written permission from Bellingham Marine Industries, Inc. UNIFLOAT®, UNIDECK® and © Bellingham Marine Industries, Inc.

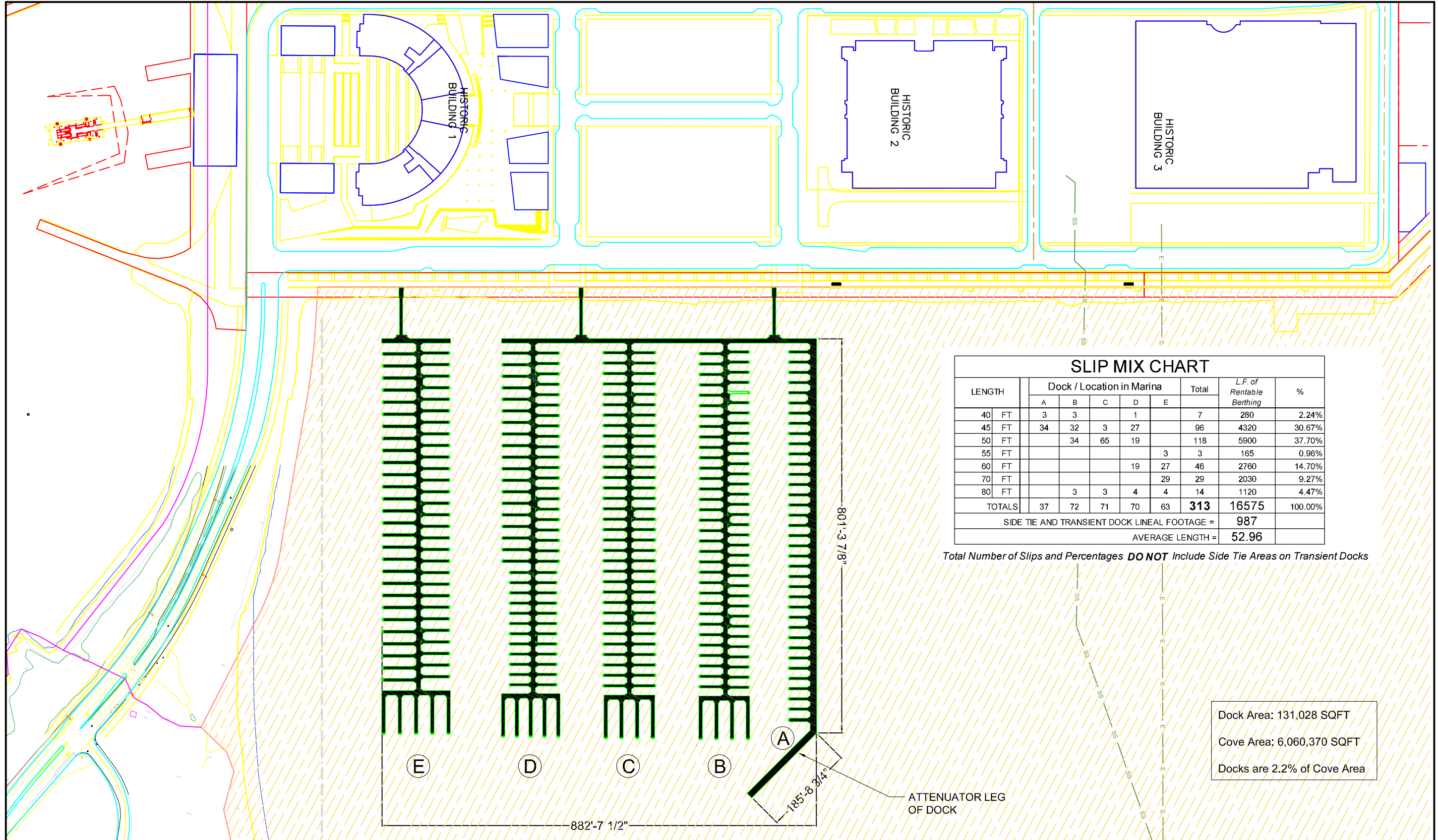
SITE IMPROVEMENT PLAN			
ACCEPTED BY:	CITY ENGINEER	R.C.E.	EXP. DATE
ACCEPTED BY:	CITY ENGINEER	R.C.E.	EXP. DATE

PROJECT NUMBER:	15-3-833
ENGINEER / DESIGNER:	
PROJECT MANAGER:	T.B.D.
CHECKED BY:	

TREASURE ISLAND MARINA San Francisco, CA	
OVERALL SITE PLAN- MARINA	

FIGURE 1- Marina Site Plan	
SCALE:	See Graphic Scale (Sheet Size 24" x 36")
DRAWN BY:	DD
DATE:	6-13-17
SHEET NO.:	01
DRAWING:	SP1.5

PRELIMINARY - NOT FOR CONSTRUCTION



NO.	DATE	DESCRIPTION	BY
REVISIONS			

Bellingham MARINE
 The World's Most Comprehensive Marine Builder
 Southwest Division
 8810 Sparling Lane
 Dixon, CA 95620
 TEL: (707) 678-2385
 FAX: (707) 678-1760

This drawing contains proprietary information which is the property of Bellingham Marine Industries, Inc., and shall not be copied, reproduced or made available to third parties without prior written permission from Bellingham Marine Industries, Inc. UNIFLOAT®, UNIDECK® and © Bellingham Marine Industries, Inc.

SITE IMPROVEMENT PLAN

ACCEPTED BY: CITY ENGINEER R.C.E. EXP. DATE

ACCEPTED BY: CITY ENGINEER R.C.E. EXP. DATE

PROJECT NUMBER: 15-3-833

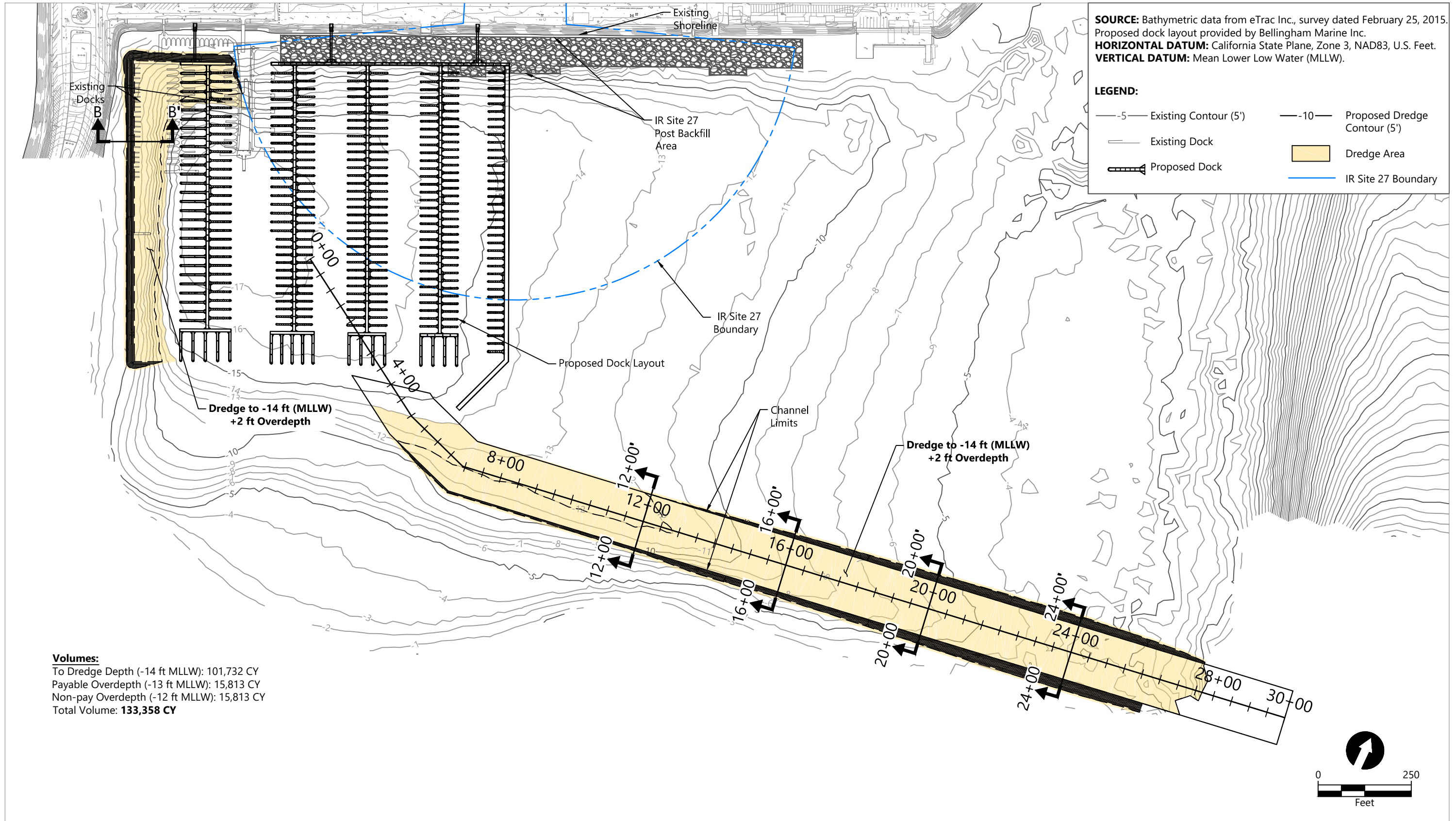
ENGINEER / DESIGNER: REDPOINT STRUCTURES
 PROJECT MANAGER: T.B.D.
 CHECKED BY:

TREASURE ISLAND MARINA
 San Francisco, CA

Approximate Dock Area & Cove Area

FIGURE 2- Proposed Marina Configuration

SCALE: Not to Scale (Sheet Size 24" x 36")
 DRAWN BY: DD
 DATE: 6-13-17
 SHEET NO.: -
 DRAWING: -

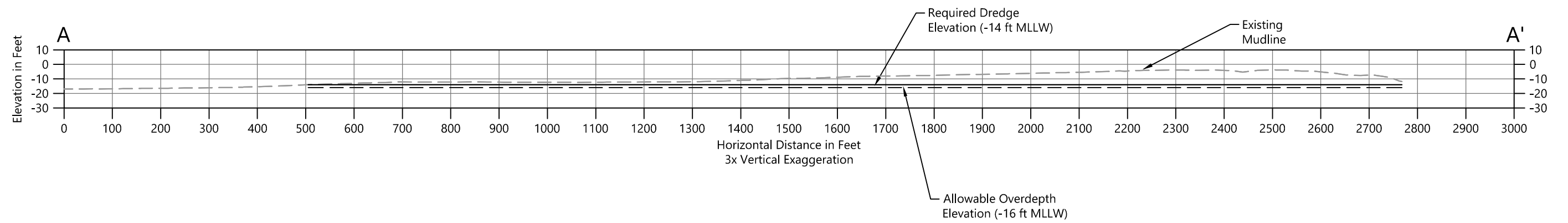


Publish Date: 2017/06/19 12:29 PM | User: mpratschner
 Filepath: K:\Projects\1320-Treasure Island\Treasure Island\1320-RP-002 -14 DREDGE.dwg Figure 3

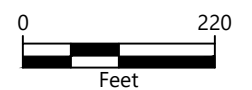


Figure 3
Conceptual Dredging Plan

Conceptual Dredging
 Treasure Island Marina



SOURCE: Bathymetric data from eTrac Inc., survey dated February 25, 2015.
HORIZONTAL DATUM: California State Plane, Zone 3, NAD83, U.S. Feet.
VERTICAL DATUM: Mean Lower Low Water (MLLW).

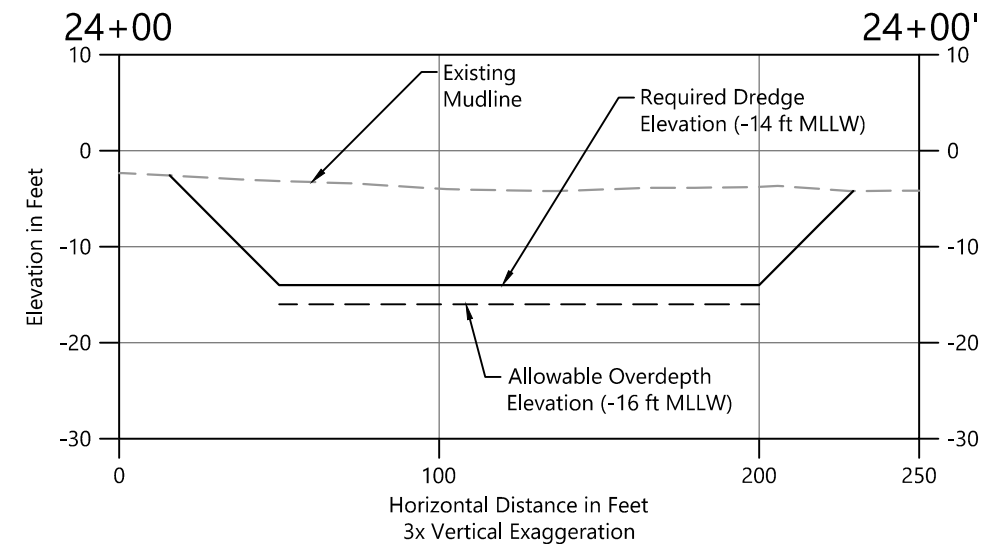
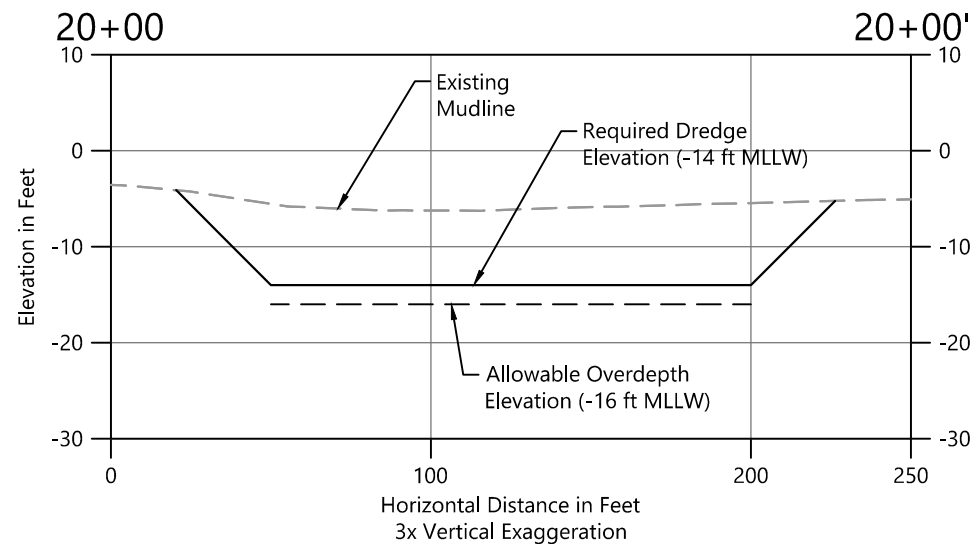
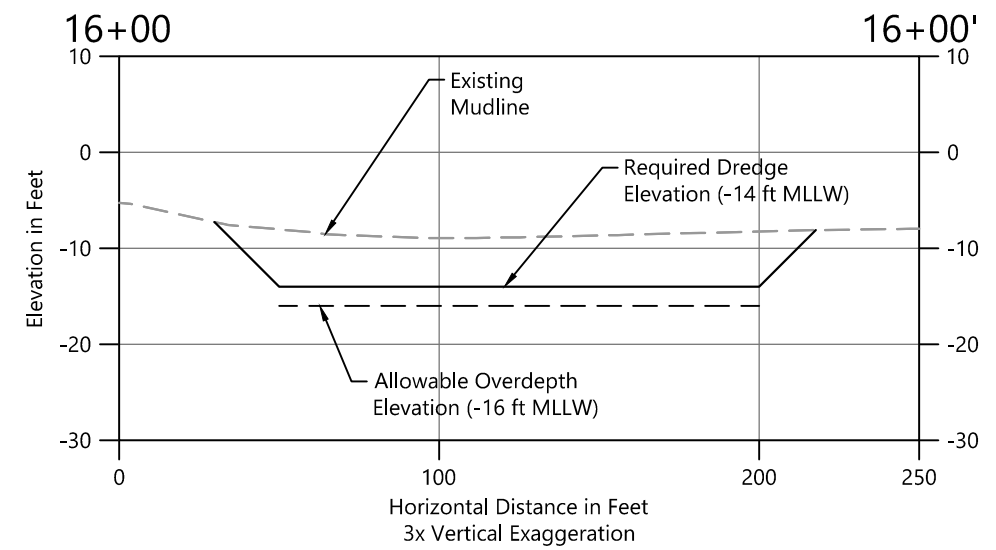
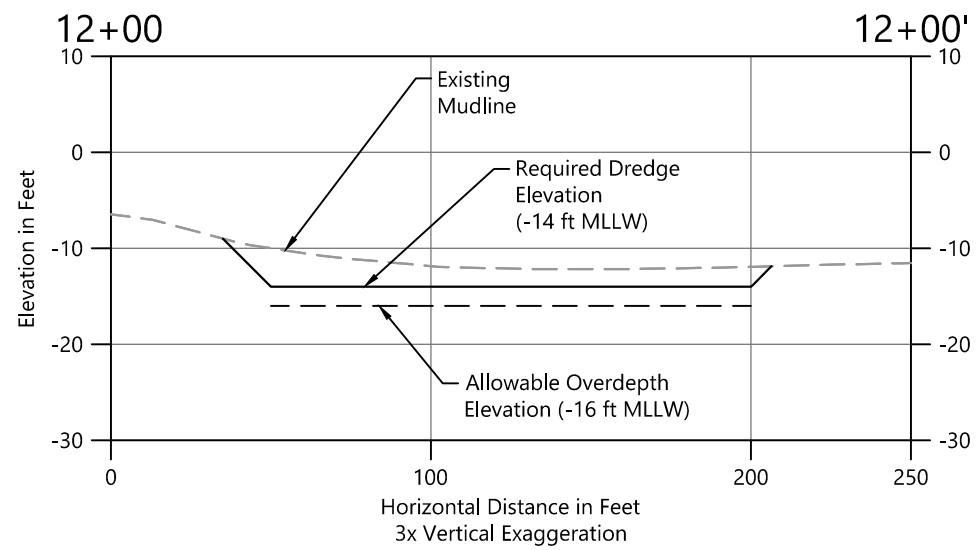


Publish Date: 2017/06/19 12:41 PM | User: mpratschner
 Filepath: K:\Projects\1320-Treasure Island\Treasure Island\1320-RP-002 -14 DREDGE.dwg Figure 4

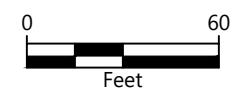


Figure 4
Conceptual Dredging Elevation - Section A-A'

Conceptual Dredging
 Treasure Island Marina



SOURCE: Bathymetric data from eTrac Inc., survey dated February 25, 2015.
HORIZONTAL DATUM: California State Plane, Zone 3, NAD83, U.S. Feet.
VERTICAL DATUM: Mean Lower Low Water (MLLW).

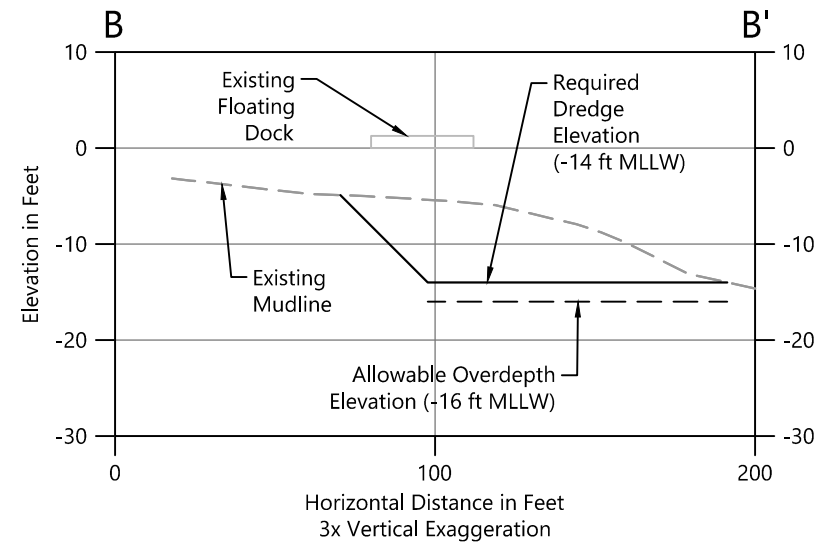


Publish Date: 2017/06/19 1:00 PM | User: mpratschner
 Filepath: K:\Projects\1320-Treasure Island\Treasure Island\1320-RP-002 -14 DREDGE.dwg Figure 5

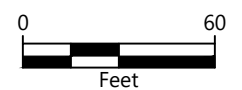


Figure 5
Conceptual Dredging Detail - Sections 12+00 - 24+00

Conceptual Dredging
 Treasure Island Marina



SOURCE: Bathymetric data from eTrac Inc., survey dated February 25, 2015.
HORIZONTAL DATUM: California State Plane, Zone 3, NAD83, U.S. Feet.
VERTICAL DATUM: Mean Lower Low Water (MLLW).



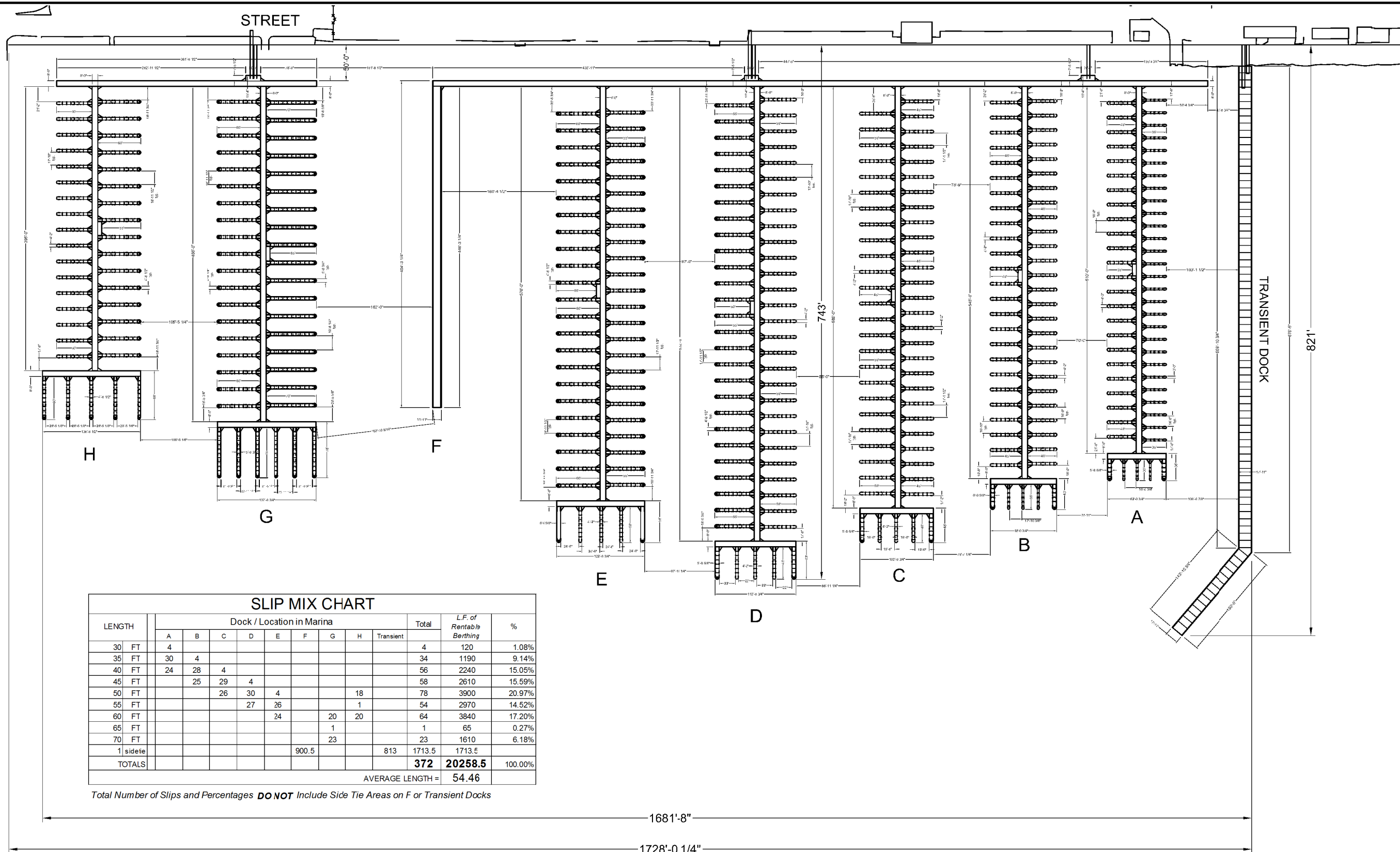
Publish Date: 2017/06/19 1:01 PM | User: mpratschner
 Filepath: K:\Projects\1320-Treasure Island\Treasure Island\1320-RP-002 -14 DREDGE.dwg Figure 6



Figure 6
Conceptual Dredging Elevation - Section B-B'

Conceptual Dredging
 Treasure Island Marina

PRELIMINARY - NOT FOR CONSTRUCTION



LENGTH	Dock / Location in Marina								Total	L.F. of Rentable Berthing	%
	A	B	C	D	E	F	G	H			
30 FT	4								4	120	1.08%
35 FT	30	4							34	1190	9.14%
40 FT	24	28	4						56	2240	15.05%
45 FT		25	29	4					58	2610	15.59%
50 FT			26	30	4			18	78	3900	20.97%
55 FT				27	26			1	54	2970	14.52%
60 FT					24			20	64	3840	17.20%
65 FT								1	1	65	0.27%
70 FT								23	23	1610	6.18%
1 sidelite								900.5	813	1713.5	1713.5
TOTALS									372	20258.5	100.00%

AVERAGE LENGTH = 54.46

Total Number of Slips and Percentages **DO NOT** Include Side Tie Areas on F or Transient Docks

NO.	DATE	DESCRIPTION	BY
REVISIONS			



This drawing contains proprietary information which is the property of Bellingham Marine Industries, Inc., and shall not be copied, reproduced or made available to third parties without prior written permission from Bellingham Marine Industries, Inc. UNIFLOAT®, UNIDECK® and © Bellingham Marine Industries, Inc.

SITE IMPROVEMENT PLAN

ACCEPTED BY: _____
CITY ENGINEER R.C.E. EXP. DATE _____

ACCEPTED BY: _____
CITY ENGINEER R.C.E. EXP. DATE _____

PROJECT NUMBER:
15-3-833

ENGINEER / DESIGNER:

PROJECT MANAGER:
T.B.D.

CHECKED BY:

TREASURE ISLAND MARINA
San Francisco, CA

Proposed Marina Plan
(2006 EIR)

FIGURE 7-
Proposed
Marina Plan
(2006 EIR)

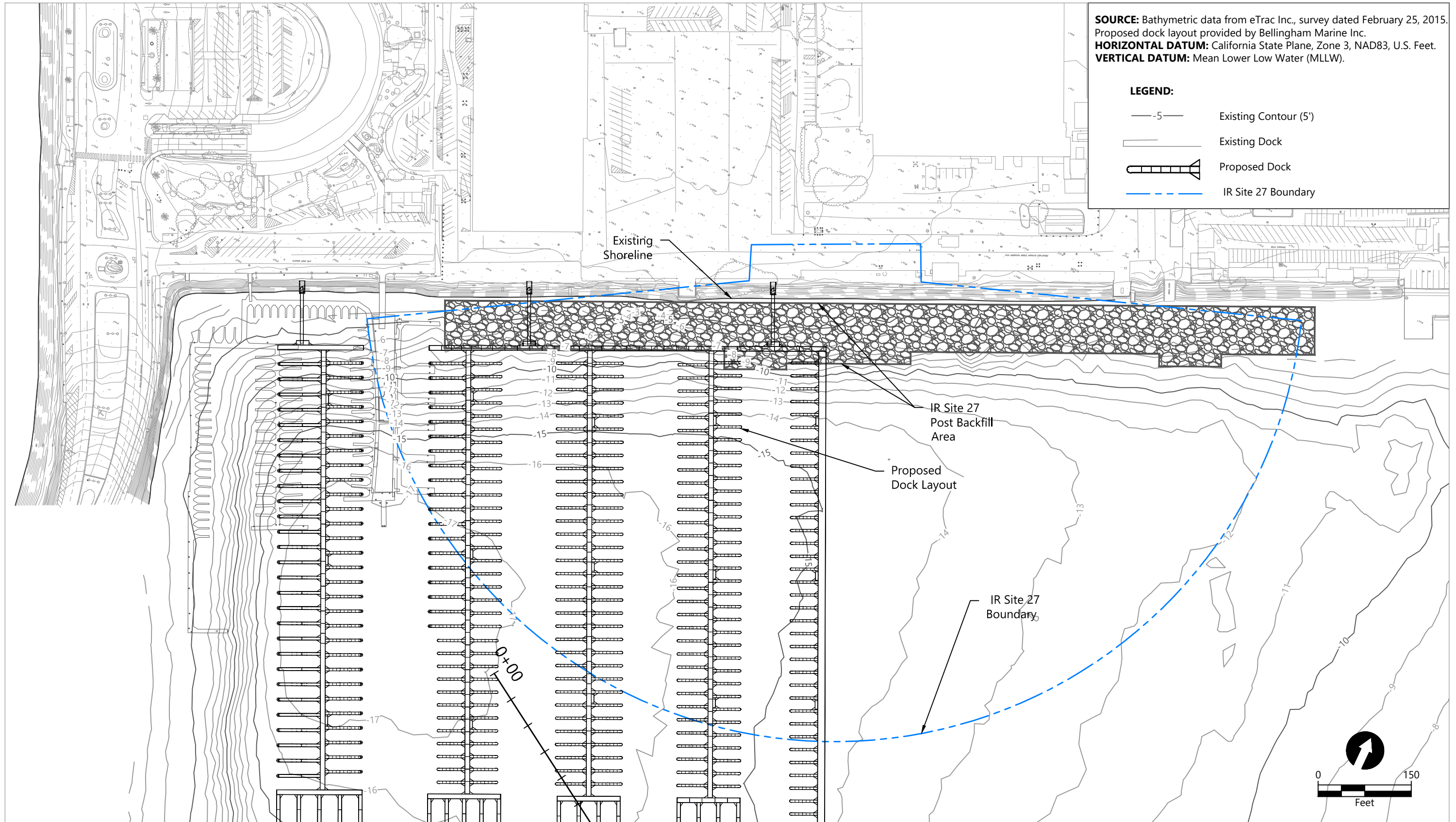
SCALE: Not to Scale
(Shee Size 24" x 36")

DRAWN BY: DD

DATE: 6-13-17

SHEET NO.: 7

DRAWING: MP0



Publish Date: 2017/06/19 1:41 PM | User: mpratschner
 Filepath: K:\Projects\1320-Treasure Island\Treasure Island\1320-RP-005 IR 27.dwg Figure 8



Figure 8
IR Site 27

Conceptual Dredging
 Treasure Island Marina